

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Laborczfalvi et al.

Application number: 10/711,734

Filed: September 30, 2004

For: *Methods and Apparatus for Remapping Accesses  
to Virtual System Resources*

Attorney Docket No.: 2006579-0244 (CTX-110)

Art Unit: 2192

Confirmation No.: 5733

Examiner: Wei, Zheng

MS AF

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

This request is submitted responsive to the Final Office Action mailed on August 17, 2009, and accompanying a Notice of Appeal to the Board of Appeals and Interferences in the United States Patent and Trademark Office appealing the rejection of Claims 1-16 and 18-22 in the above-referenced case. Applicants request that a pre-appeal brief review be conducted and that consideration be given to the following remarks, pursuant to the July 12, 2005, Official Gazette Notice entitled "New Pre-Appeal Brief Conference Pilot Program" and the February 7, 2006, Official Gazette Notice entitled "Extension of the Pilot Pre-Appeal Brief Conference Program."

Applicants respectfully submit that the Examiner's rejection contains clear errors of fact. Claims 1-5 and 8-13 are rejected under 35 U.S.C. § 103(a) as unpatentable over by U.S. Patent Number 7,203,941 to Demsey et al. ("Demsey") in view of U.S. Patent Number 4,253,145 to Goldberg ("Goldberg"). Claims 6-7, 14-16, and 18-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Demsey in view of Goldberg and in further view of U.S. Patent Number 7,206,819 to Schmidt ("Schmidt"). Claims 1 and 14 are independent claims.

### **CLAIM REJECTIONS UNDER 35 U.S.C. §103**

#### **I. Independent Claim 1 Patentable over Demsey and Goldberg**

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. Independent claim 1 is directed towards a method for virtualizing access to native resources. An isolation environment includes an application isolation layer and a user isolation layer. Each isolation layer modifies a view of native resources. (*see* Specification, para. [0062]).

When an application requests enumeration of a native resource, a virtualized enumeration is constructed by first enumerating the instance of the native resource provided in the system layer. Next, the native resource is enumerated from the application isolation layer. Any enumerated resource encountered in the application isolation layer replaces the enumeration provided by the system layer. Next, the native resource is enumerated from the user isolation layer, where if any enumerated resource is encountered, the enumeration provided by the user isolation layer replaces the resource enumerated by the application isolation layer and the system layer. (*see* Specification, para. [0073]).

Demsey does not disclose an isolation environment that includes an application isolation layer and a user isolation layer. Rather, Demsey merely describes a tracking system for native resources. (*see* Demsey, Summary). In the Office Action<sup>1</sup>, the Examiner again equates the application isolation layer and the user isolation layer to Demsey's "managed code portion" and "user code." (*see* Office Action, mailed Aug. 17, 2009, page 4). However, as previously argued, the "user code" described in Demsey is merely any application installed by the user other than

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<sup>1</sup> Although Applicants have submitted several different arguments with regard to the rejections of the pending claims, the Examiner has repeatedly rejected the claims using the same language and references in the multiple Office Actions and Advisory Action.

the virtual machine and the operating system. (*see* Demsey, Fig. 1, and col. 5, lines 46-48). The “managed code portion” described in Demsey refers to a portion of the Virtual Machine (VM) environment which uses native resources. (*see* Demsey, col. 1, lines 13-28). Neither the “user code” nor the “managed code portion” described in Demsey provide a unique view of native resources. Further, applications in Demsey are not isolated from each other and actually share the same native resources. (*see* Demsey, col. 2, lines 19-23). Therefore, Demsey fails to teach or suggest an isolation environment including an application isolation layer and a user isolation layer, as explicitly required by the claims.

The Examiner admits that Demsey does not teach rule actions, but again cites Goldberg for the purposes of describing a rule action of remap. As previously argued, Goldberg merely describes a system for mapping virtual resources of a virtual machine to native resources of a physical machine. As described in Goldberg, all virtual machines have scheduled access to the same native resources. Accordingly, although the applications may execute on different machines, they are not isolated from each other. Thus, Goldberg does not teach or suggest an application isolation layer. Further, Goldberg is silent with regards to a user isolation layer. Therefore, Goldberg fails to cure the above-identified deficiencies of Demsey. Accordingly, the combination of Demsey and Narlikar fails to teach or suggest an isolation environment including an application isolation layer and a user isolation layer. As claims 2-5 and claims 8-13 depend on and incorporate all of the patentable subject matter of independent claim 1, Applicants respectfully submit that claims 2-5 and 8-13 are also patentable over Demsey and Goldberg.

## II. Dependent Claims 6-7 Patentable over Demsey, Goldberg, and Schmidt

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. Dependent claim 6 recites “receiving a request to access a native resource compris[ing]...the request including a virtual name for the registry key.” Dependent claim 7 recites “forming a literal name further compris[ing]...determining a rule associated with the virtual name included in the received request.” In view of the arguments above in connection with the rejection of claim 1, Applicants submit that claim 1 is patentable over Demsey and Goldberg. Claims 6-7 depend on and incorporate all of the patentable subject matter of claim 1. Thus Applicants submit that claims 6-7 are also patentable over Demsey and Goldberg.

The Examiner cites Schmidt for the purposes of describing a virtual namespace to access a registry key. As previously argued, Schmidt merely describes a namespace that remaps resource locations. Schmidt specifically states that “the underlying file system is globally available.” (*see* Schmidt, col. 5, line 64). Thus the applications in Schmidt are not isolated from each other and actually share the same native resources. Thus, Schmidt fails to teach or suggest an isolation environment including an application isolation layer and an user isolation layer. Therefore, the combination of Demsey, Goldberg, and Schmidt, alone or in combination, fail to teach or suggest each and every element of the claimed invention.

III. Independent Claim 14 Patentable over Demsey, Goldberg, and Schmidt

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. Independent claim 14 is directed towards a computer implemented apparatus for providing an aggregate view of enumerated system resources from various isolation layers. An isolation environment includes an application isolation layer and a user isolation layer. Each isolation layer modifies the view of native resources. (*see* Specification, para. [0062]).

In view of the arguments above in connection with the rejection of claim 1, Applicants submit that the combination of Demsey and Narlikar fails to teach or suggest an isolation environment including an application isolation layer and a user isolation layer. Additionally, Schmidt also fails to teach or suggest an isolation environment including an application isolation layer and a user isolation layer. Therefore, the combination of Demsey, Goldberg, and Schmidt, alone or in combination, fail to teach or suggest each and every element of the claimed invention. Claims 15-16, 18, and 20-22, depend on and incorporate all of the patentable subject matter of claim 14. Thus Applicants submit that claims 15-16, 18, and 20-22 are also patentable over Demsey and Goldberg.

IV. Dependent Claim 19 Patentable over Demsey, Goldberg, and Schmidt

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. Dependent claim 19 recites “determin[ing] the literal name...from the virtual name of the native resource.” In view of the arguments above in connection with the rejection of claim 14, Applicants submit that claim 14 is patentable over

Demsey and Goldberg. Claim 19 depends on and incorporates all of the patentable subject matter of claim 14. Thus Applicants submit that claim 19 is also patentable over Demsey and Goldberg.

The Examiner cites Schmidt for the purposes of describing a virtual namespace to access a registry key. In view of the arguments above in connection with the rejection of claim 6-7, Applicants submit that claim 19 is patentable over Schmidt because Schmidt fails to teach or suggest an isolation environment including an application isolation layer and an user isolation layer. Therefore, the combination of Demsey, Goldberg, and Schmidt, alone or in combination, fail to teach or suggest each and every element of the claimed invention.

### Conclusion

Applicants respectfully request that the Examiner review the claim amendments presented in the *Amendment and Response to Non-Final Office Action* dated May 26, 2009. In particular, Applicants respectfully request that the Examiner consider the claim amendments in light of the above arguments. These arguments demonstrate that all claims are patentable over Demsey, Goldberg and the Schmidt.

Respectfully submitted,  
CHOATE, HALL & STEWART LLP

Date: November 17, 2009

/John D. Lanza/  
John D. Lanza  
Registration Number: 40,060

Patent Group  
CHOATE, HALL & STEWART LLP  
Two International Place  
Boston, MA 02110  
Phone: (617) 248-5000  
Fax: (617) 502-5002